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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/696,871

10/30/2003

Cory Watkins

A126.108.102

9109

37974

7590

12/06/2005

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EXAMINER

PHAM, HOA Q

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                 |                |  |
|------------------------------|-----------------|----------------|--|
| <b>Office Action Summary</b> | Application No. | Applicant(s)   |  |
|                              | 10/696,871      | WATKINS ET AL. |  |
|                              | Examiner        | Art Unit       |  |
|                              | Hoa Q. Pham     | 2877           |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/30/03</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Drawings*

1. The drawing is objected as follow:

a. The reference numeral "124" as stated in page 6, line 24 is not shown in figure.

b. The drawings are objected to under 37 CFR 1.83(a) because they fail to show **"the aperture array includes a two dimensional arrays of pinholes" in claims 13 and 37; "a plurality of baffles" in claims 27-28 and 40; "an array of lenslettes" in claims 31 and 43 and a " first stop" and second stop" in claims 21-25 and 29-30.** Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by

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the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The disclosure is objected to because of the following informalities: Page 6, lines 21-22, the reference character "122" has been used to designate both "light source" and "the optical subsystem". Appropriate correction is required.

3. The amendment filed 10/30/03 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the limitations "**the aperture array includes one or more pinholes, each pinhole having an associated individual microlens therewith**" in claims 14 and 37 and "**the aperture array is curved ...**" in claims 15-16 and 38 are not supported by the original specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Claim Rejections - 35 USC § 112***

4. Claims 14-16 and 37-44 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably

convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. As mentioned above. In addition, claims 39-44 are dependent from claim 38, therefore, inherit the deficiency of claim 38.

5. Claim 32 is recites the limitation ""the apodization"" in line 1. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 44 is recites the limitation "the apodization" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 10-13 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corle et al (5,067,805) in view of McCarthy et al (4,802,748).

Regarding claim 10, Corle et al (of record) discloses a non-laser confocal scanning optical microscope, which has all the features of the present invention except the beam splitter is a pellicle beam splitter. However, such a feature is known in the art as taught by McCarthy et al. McCarthy et al (of record), from the same field of endeavor, discloses a confocal scanning microscope in which the pellicle beam splitter is used

(column 3, lines 43-45). It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the beam splitter of Corle et al by a pellicle beam splitter as taught by McCarthy et al because the pellicle beam splitter is extremely thin so as not to double the image or introduce astigmatism as suggested by McCarthy (column 3, lines 43-45).

Regarding claims 11-12, see figure 2 and column 2 lines 6-15 of Corle et al for a plurality of one dimensional arrays of pinholes (14).

Regarding claims 17-18, Corle et al teaches that the detector is a CCD camera (column 1 line 55).

Regarding claims 13, Corle et al does not explicitly teach the use of multiple two dimensional arrays of pinholes; however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include in the disk of Corle et al a multiple two dimensional arrays of pinholes because they would function in the same manner. A substitution one for another is generally recognized as being within the level of ordinary skill in the art.

Regarding claims 19 and 20, Corle et al teaches that the detector is a CCD camera (column 1 line 55).

2. Claims 21-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corle et al (5,067,805) and McCarthy et al (4,802,748) as applied to claims 10-13 and 17-20 above, and further in view of Suzuki et al (4,262,208).

Regarding claims 21-31, using a Kohler illumination system in an inspection optical device is well known in the art as mentioned in the specification. In addition, Suzki et al teaches that "the method of forming an image of the light source on the aperture is already known as Kohler illumination and is also effective for preventing uneven illumination on the image plane" (column 3, lines 17-21). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Corle et al and McCarthy et al by including in Corle et al and McCarthy et al a Kohler illuminating system as taught by Suzki et al for the purpose of preventing uneven illumination on the image plane.

Regarding claim 32, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include in Corle et al an apodization filter so that to block a portion of light beam because using a strong light beam may damage to the optical elements.

Regarding claims 33-35, see figures 3-4 of Corle et al for dual telecentric object imager.

Regarding claim 36, Corle et al teaches that the detector is a CCD camera (column 1 line 55).

### ***Double Patenting***

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA

1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 10-11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,970,287.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claim 10 is broader than what was claimed in claim 1 of the patent and all limitations of claims 10-11 can be read in claim 1 of the patent.

5. Claims 10-11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,882,415.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claim 10 is broader than what was claimed in claim 1 of the patent and all limitations of claims 10-11 can be read in claim 1 of the patent.

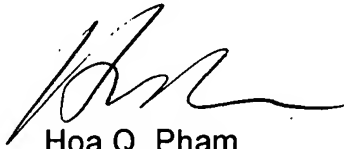
6. Claim 10 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,773,935. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claim 10 is broader than what was claimed in claim 1 of the patent and all limitations of claim 10 can be read in claim 1 of the patent.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa Q. Pham whose telephone number is (571) 272-2426. The examiner can normally be reached on 7:30AM to 6 PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Hoa Q. Pham  
Primary Examiner  
Art Unit 2877

HP  
December 1, 2005